NOTES ON THE METHOD ADOPTED BY THE FEMALE OF THE COMMON FRESHWATER TORTOISE CHELO-DINA LONGICOLLIS, IN THE EXCAVATION OF THE BURROWS IN WHICH HER EGGS ARE TO BE DEPOSITED.

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1. Chelodina longicollis. This strange-looking Freshwater Tortoise which has been compared to a snake threaded through a turtle, is at the present time, midsummer, engaged in the processes of nidification and deposition of her eggs; and I have taken the opportunity of watching the proceedings with particular attention during the last fortnight, in the neighbourhood of Blayney, with the following results, viz.:—

(1st). The tortoises come out of the Balabula River and travel into the cultivation paddocks, a distance, in some instances, of fifteen chains to deposit their eggs. (2nd). They carry with them a supply of water which they vomit into the holes to soften the earth while they dig. They begin operations early in the morning by scratching a small hole about an inch deep, always using their hind claws. Into the depression thus made they vomit or squirt a quantity of water, and immediately resume the scratching process. Having cleared out the mud formed by the water, and being again on the dry surface, they again vomit water into the hole and again scratch out the mud. They continue in this manner until the hole has been sunk to the required depth, viz., about seven inches. The quantity of water they use in the operation of sinking or burrowing out one of these holes is quite surprising. As far as I can make out fully a pint is used. If the ground be extra dry and hard, and their supply of water run

short, which in three instances I have known to occur, they will return to the river and next morning again make their appearance with a fresh supply and complete the unfinished hole.

I shall be glad to learn if this water-carrying peculiarity of the *Chelodina longicallis* has been observed by any other naturalist.

2. Since my previous note on Chelodina longicollis, I found another in the act of using water in burrowing, and had an excellent opportunity of watching her. She chose a hard, dry, dusty road for her operations. A surprising quantity of water was used—a continuous stream being kept running into the hole while she dug. In fact the water overflowed the hole and ran from it about two feet. She must have used considerably over a pint of water. The situation chosen was about three chains from the river, on the side of a steep incline, more than thirty feet above the level of the water. It is worthy of notice that the tortoises always choose grassless situations for their nests, and such situations are, of course, always the hardest they could choose. This is evidently to avoid the grass. When the hole is scraped out to a depth of seven inches they lay six eggs, over which they throw a covering of fine dust. Next day they return and lay six more which they again cover over with fine dust. They continue laying six per day and covering them over, until thirty-six are laid. They then cover the nest up level with the surface; but never above it. I have found as few as 15 eggs in their nests but never more than 36; and strange to say on three occasions I have tound exactly that number, viz., thirty-six. The eggs in the bottom of the hole or nest hatch first; the young scramble out, and strike a bee-line for the nearest point of the river. Farmers in this district frequently plough up the nests and find therein a number of young, and unhatched eggs.